//JAVA REGULA FALSI

import java.util.Scanner;

class Regula{

static float f(float x){

float y;

y = x\*x\*x - x - 2;

return(y);

}

static float calculate(float a,float b){

float c;

c = (a\*f(b) - b\*f(a))/(f(b)-f(a));

if(f(c)==0){

System.out.println("ROOT:"+c);

return 0;

}

else

while(Math.abs(f(c))>=0.01){

c = (a\*f(b) - b\*f(a))/(f(b)-f(a));

if(f(b)\*f(c)<0.0)

{

a=c;

}

else b=c;

}

c = (a\*f(b) - b\*f(a))/(f(b)-f(a));

return c;

}

public static void main(String[] args){

Scanner scanf = new Scanner(System.in);

float i,j,k;

do{

System.out.println("FIRST NUMBER:");

i = scanf.nextFloat();

System.out.println("SECOND NUMBER:");

j = scanf.nextFloat();

if(f(i)<0 && f(j)<0 || f(i)>0 && f(j)>0)

{

System.out.println("ROOT DOES NOT LIE IN THE GIVEN LIMIT,CHOOSE LIMIT AGAIN");

}

else

{ k = calculate( i, j);

System.out.println("ROOT:"+k);

}

}while(f(i)<0 && f(j)<0 || f(i)>0 && f(j)>0);

scanf.close();

}

}